

U.S. Patent Application No. 09/612,829
Response to the Office Action Mailed June 15, 2006
Amendment dated November 15, 2006

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AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-13. (Canceled)

14. (Currently amended) A method for handling a plurality of samples in a multi-channel capillary electrophoresis apparatus comprising:

providing a plurality of samples located on a work surface, with each sample at a respective work surface coordinate;

independently programming a correspondence between each work surface coordinate and a respective loading well;

transferring simultaneously in an automatic transfer device at least two of the samples from their respective work surface coordinates to respective loading wells not located on the work surface, wherein each loading well includes a capillary fixedly positioned therein and wherein a one-to-one correspondence between a work surface coordinate and a loading well is not required; and

injecting the samples from the loading wells into the capillaries.

15. (Previously presented) The method of claim 14 wherein each work surface coordinate is defined by a respective sample well.

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16. (Original) The method of claim 14 wherein the loading well is located in a sample loading assembly.
17. (Original) The method of claim 14 wherein the injecting is performed by electrokinetic injection.
18. (Previously presented) The method of claim 14 further comprising controlling the humidity of the environment surrounding the work surface to reduce sample evaporation.
19. (Canceled)
20. (Previously presented) The method of claim 15 wherein each sample well is a well of a conventional multi-well plate comprising 96, 384 or 1536 wells arranged in a rectangular array.
21. (Previously presented) The method of claim 14 wherein the capillary is a capillary tube.
22. (Canceled)
23. (Previously presented) The method of claim 14 wherein the simultaneously transferring includes decoupling a spatial arrangement of the work surface coordinates from a spatial

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arrangement of inlets of the capillaries positioned in the loading wells.

24. (Currently amended) A method for handling a plurality of samples in a multi-channel capillary electrophoresis apparatus comprising:

providing a plurality of samples located on a work surface, with each sample at a respective work surface coordinate;

independently programming a correspondence between each work surface coordinate and a respective loading well;

aspirating at least two of the samples into at least two respective pipettes;

transferring simultaneously in an automatic transfer device the at least two samples from their respective work surface coordinates, in the at least two respective pipettes, to at least two respective loading wells not located on the work surface, wherein each of the at least two loading wells includes a capillary fixedly positioned therein and wherein a one-to-one correspondence between a work surface coordinate and a loading well is not required, and the simultaneously transferring comprises ejecting the at least two samples out of the at least two respective pipettes into the at least two respective loading wells; and

injecting the samples from the at least two loading wells into the capillaries.

25. (Canceled)

26. (Previously presented) The method of claim 24 wherein the simultaneously transferring

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includes decoupling a spatial arrangement of the work surface coordinates from a spatial arrangement of inlets of the capillaries positioned in the loading wells.

27. (Currently amended) A method for handling a plurality of samples in a multi-channel capillary electrophoresis apparatus, comprising:

providing a plurality of samples located on a work surface, with each sample at a respective work surface coordinate;

independently programming a correspondence between each work surface coordinate and a respective loading well;

transferring simultaneously in an automatic transfer device at least two of the samples from their respective work surface coordinates to respective loading wells not located on the work surface, wherein each loading well is in fluid communication with a respective capillary formed in a monolithic substrate and wherein a one-to-one correspondence between a work surface coordinate and a loading well is not required, and each respective capillary comprises a capillary of a multi-channel capillary electrophoresis apparatus; and

injecting the samples from the loading wells into the capillaries.

28. (Previously presented) The method of claim 27, wherein a one to one correspondence between the work surface coordinates and the capillaries is not required.

29. (Previously presented) The method of claim 27, wherein each respective capillary

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comprises a respective inlet.

30. (Currently amended) The method of claim 29, wherein a spatial arrangement of ~~sample~~
wells work surface coordinates is decoupled from a spatial arrangement of the capillary inlets.

31. (Previously presented) The method of claim 27, wherein there is no relative motion
between each respective capillary and the loading well.